

FIG. 1A

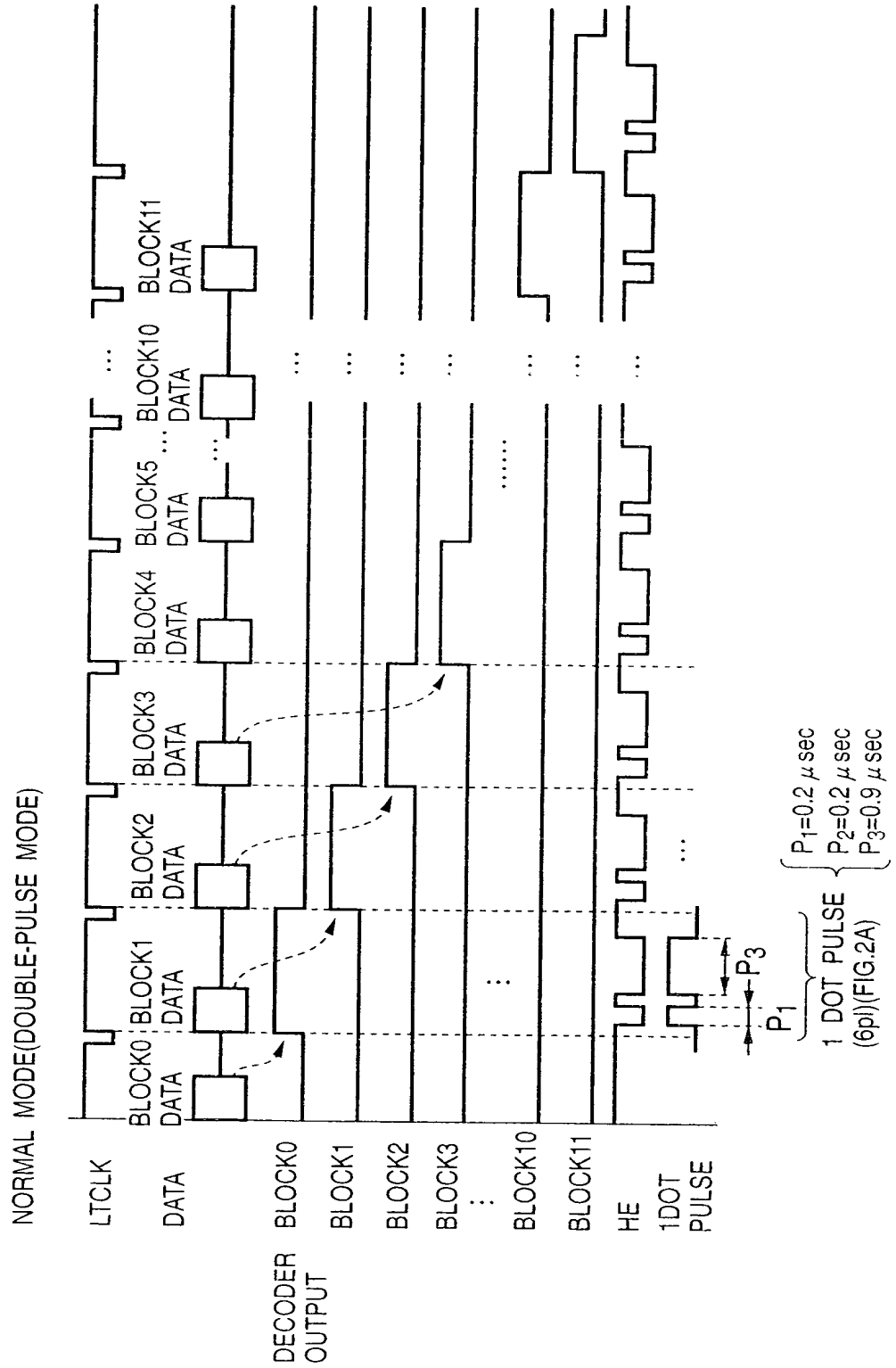


FIG. 1B

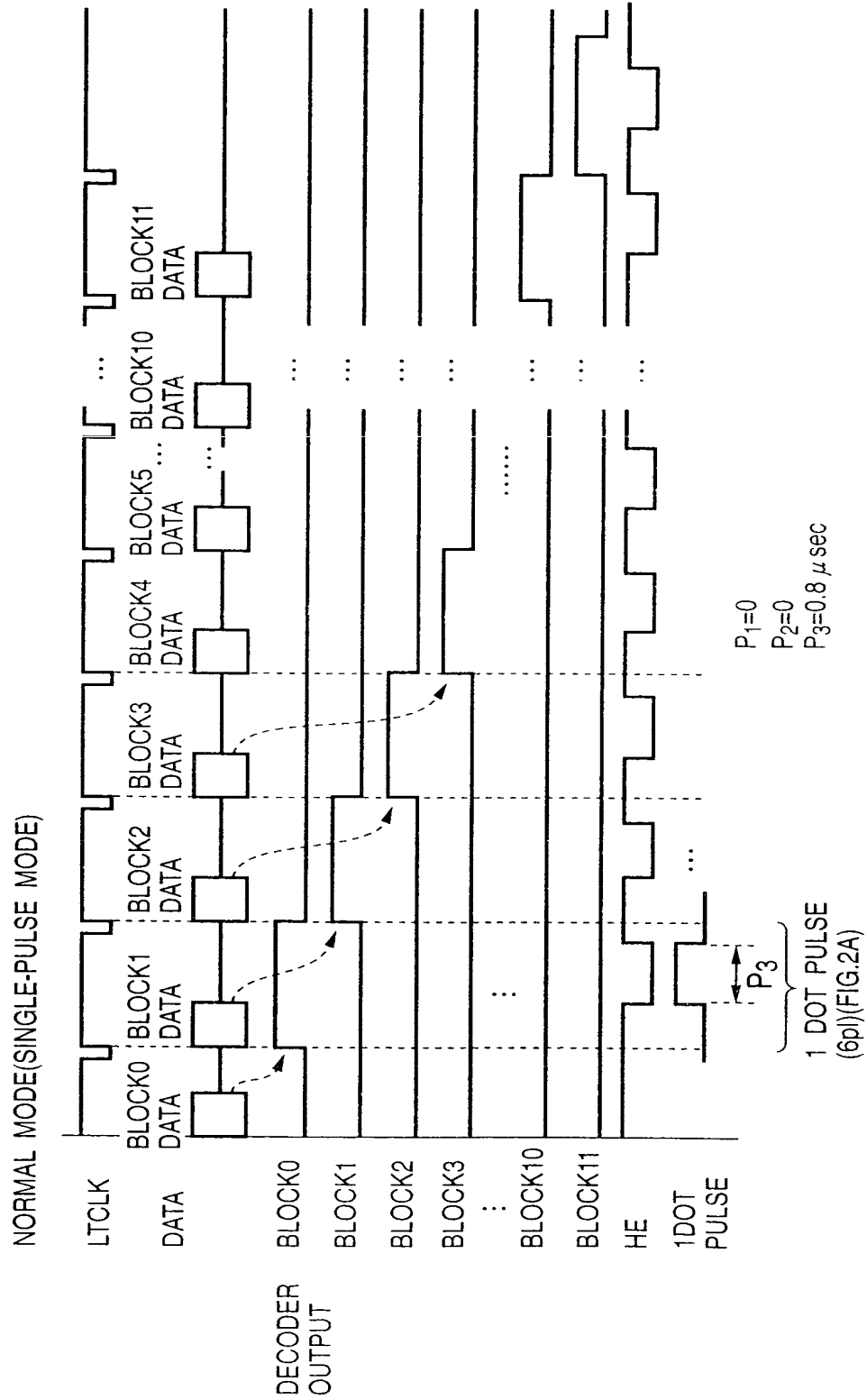


FIG. 1C

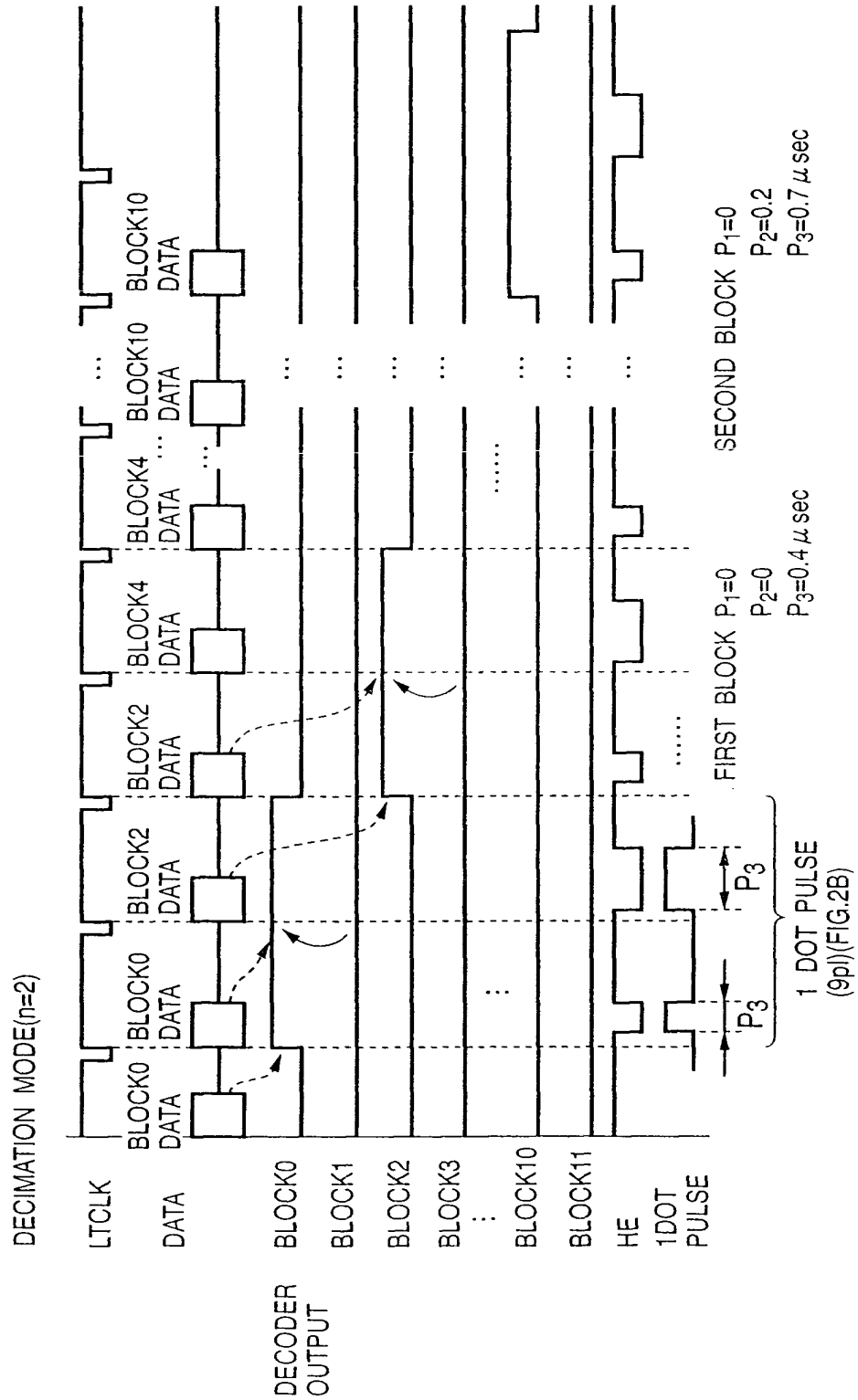


FIG. 1D

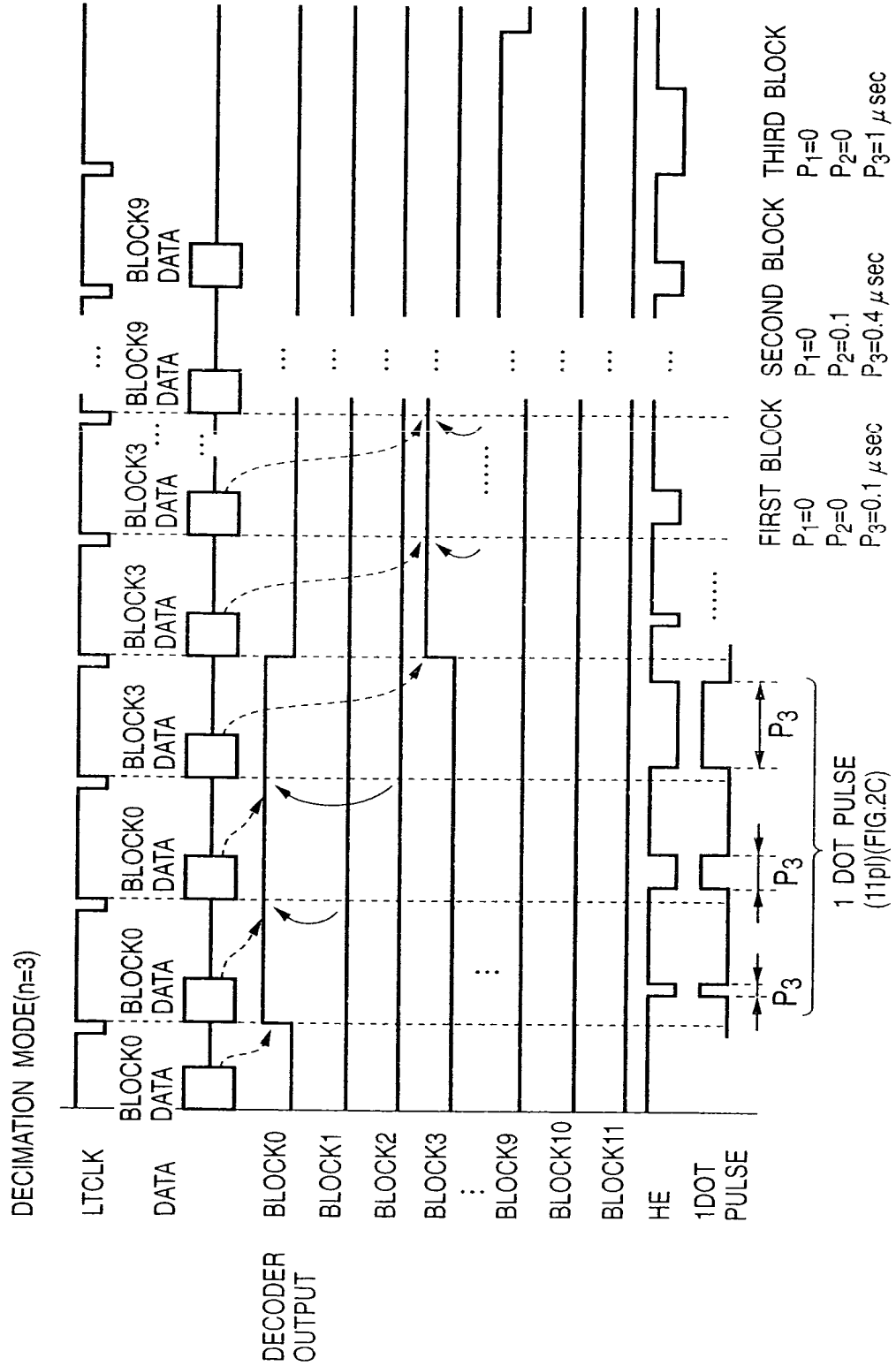


FIG. 2A

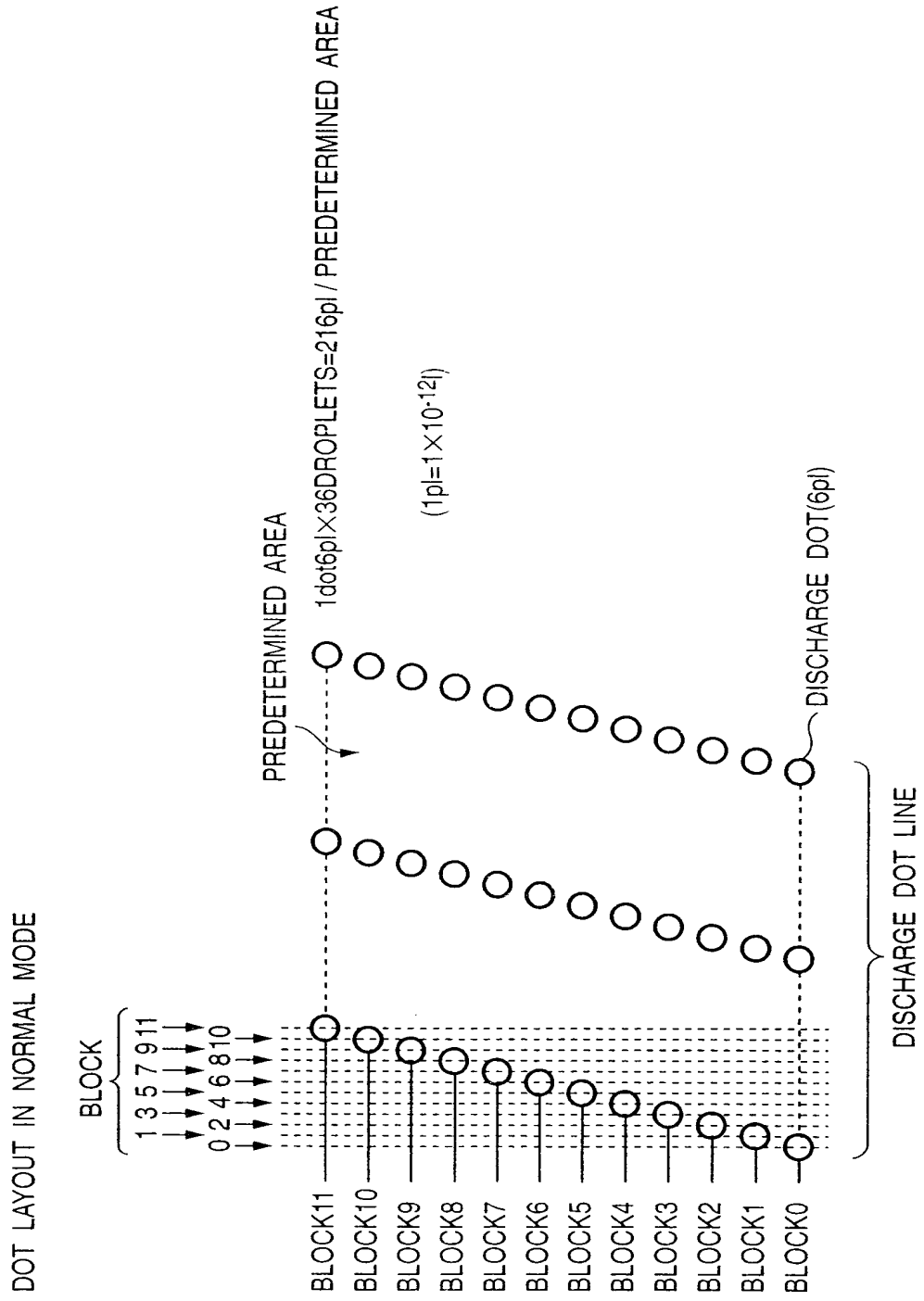


FIG. 2B

DOT LAYOUT IN DECIMATION MODE(n=2)

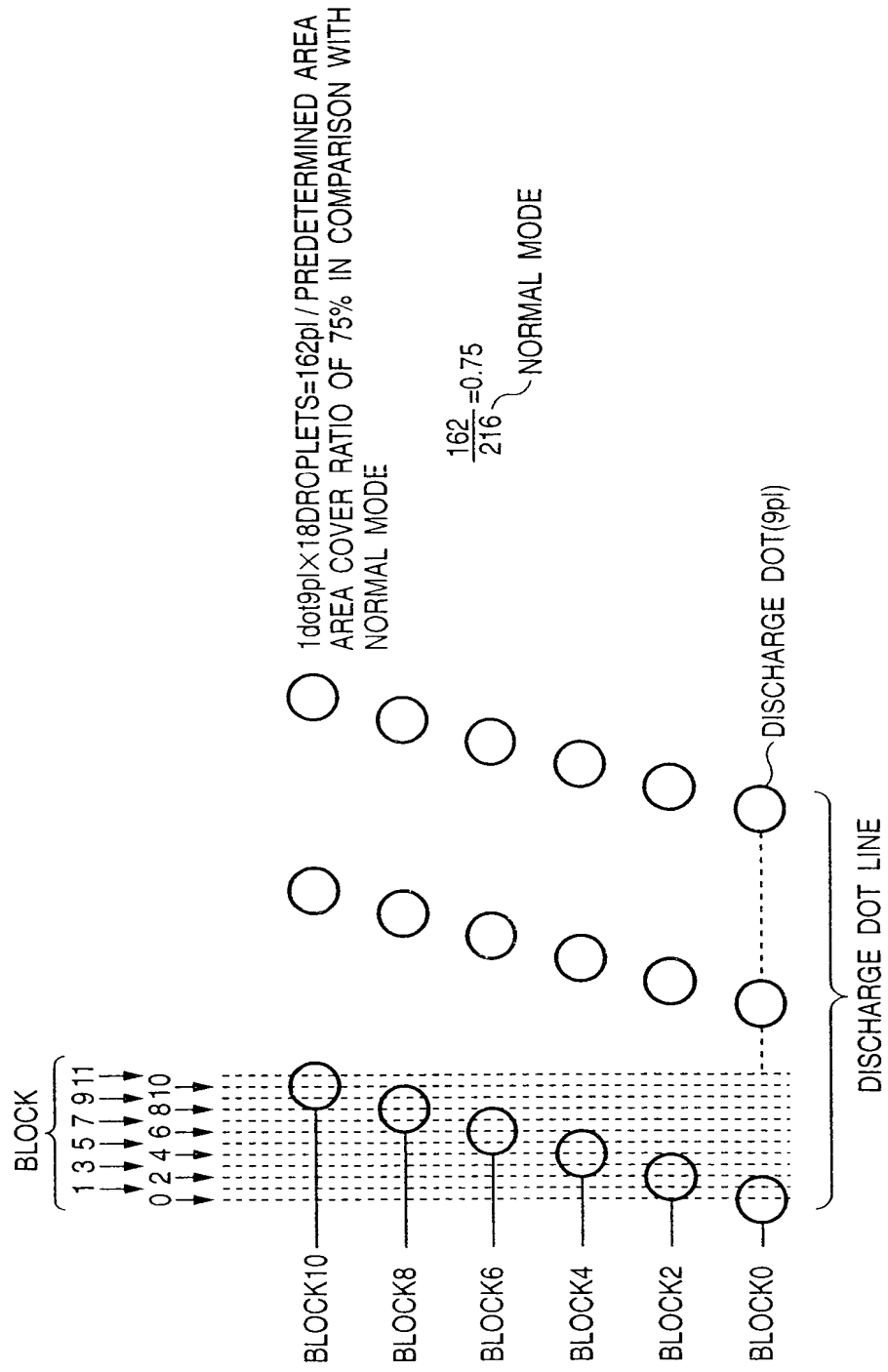


FIG. 3

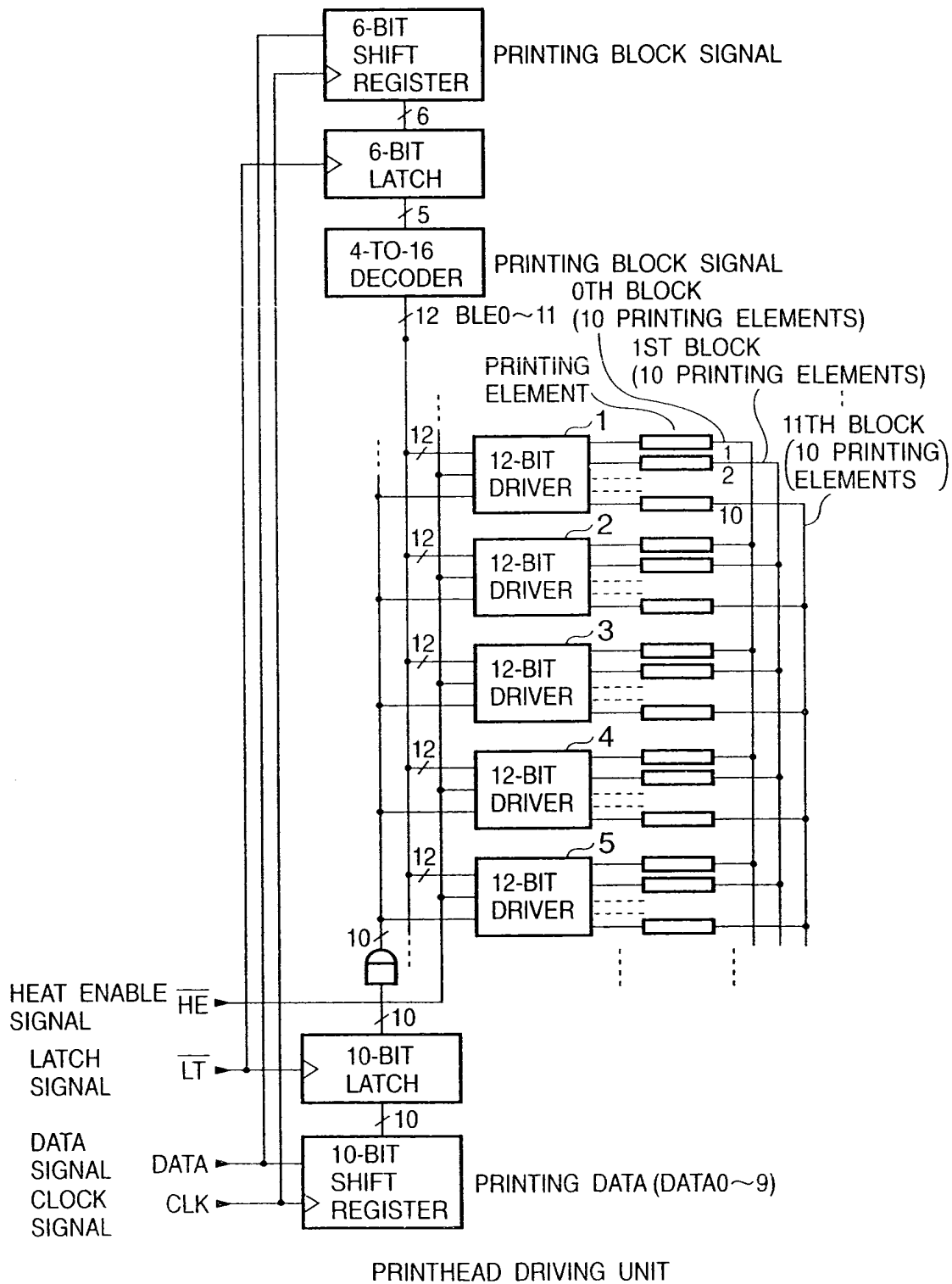
FIRST EMBODIMENT

PRINthead TEMPERATURE-PRINTING MODE TABLE

PRINthead TEMPERATURE	30°C OR LESS	30°C TO 35°C	36°C TO 40°C	41°C OR MORE
PRINTING MODE	NORMAL MODE (DOUBLE-PULSE MODE)	NORMAL MODE (SINGLE-PULSE MODE)	DECIMATION MODE (n=2)	DECIMATION MODE (n=3)

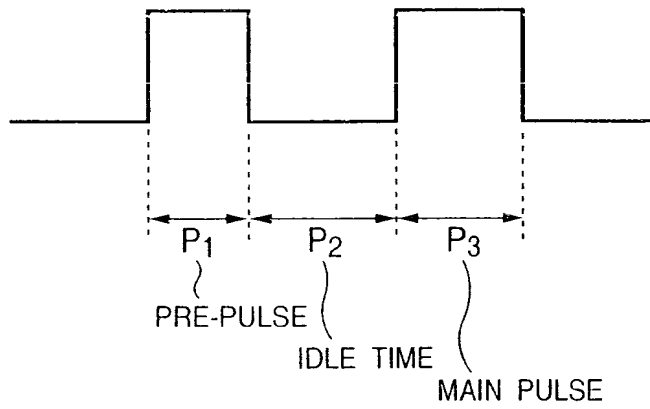
9/24

FIG. 4



10/24

FIG. 5



DOUBLE-PULSE DRIVING IN
CONVENTIONAL PRINthead

FIG. 6

TIMING CHART OF DATA TRANSFER OF PRINTING DATA(PRINTING BIT)
SIGNAL AND PRINTING BLOCK SIGNAL

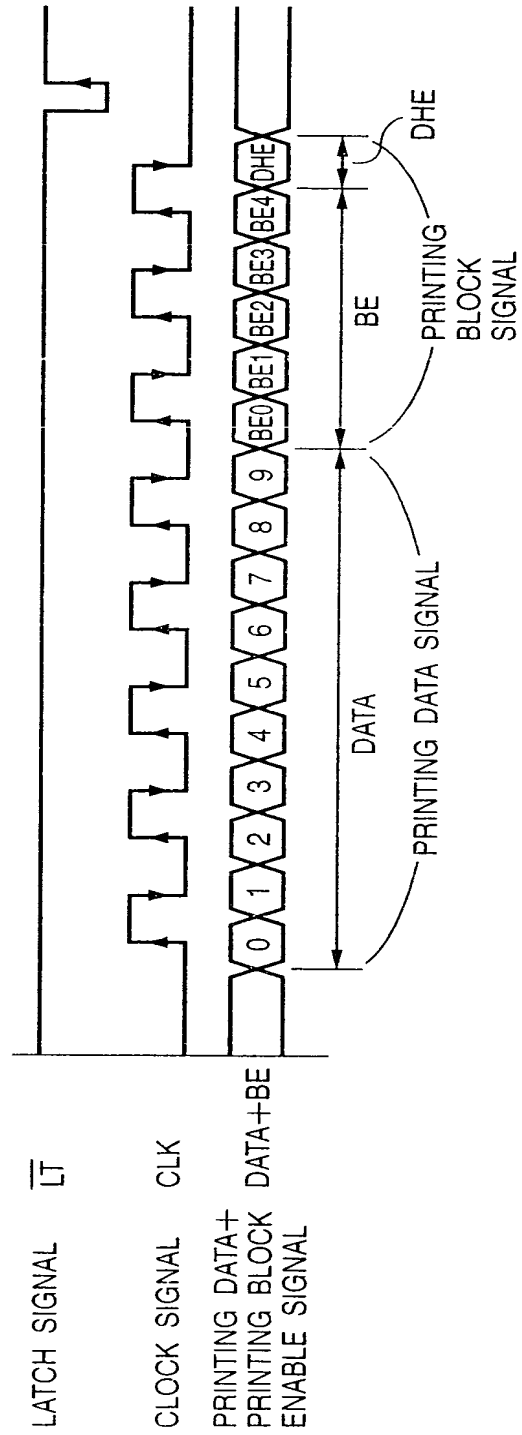


FIG. 7

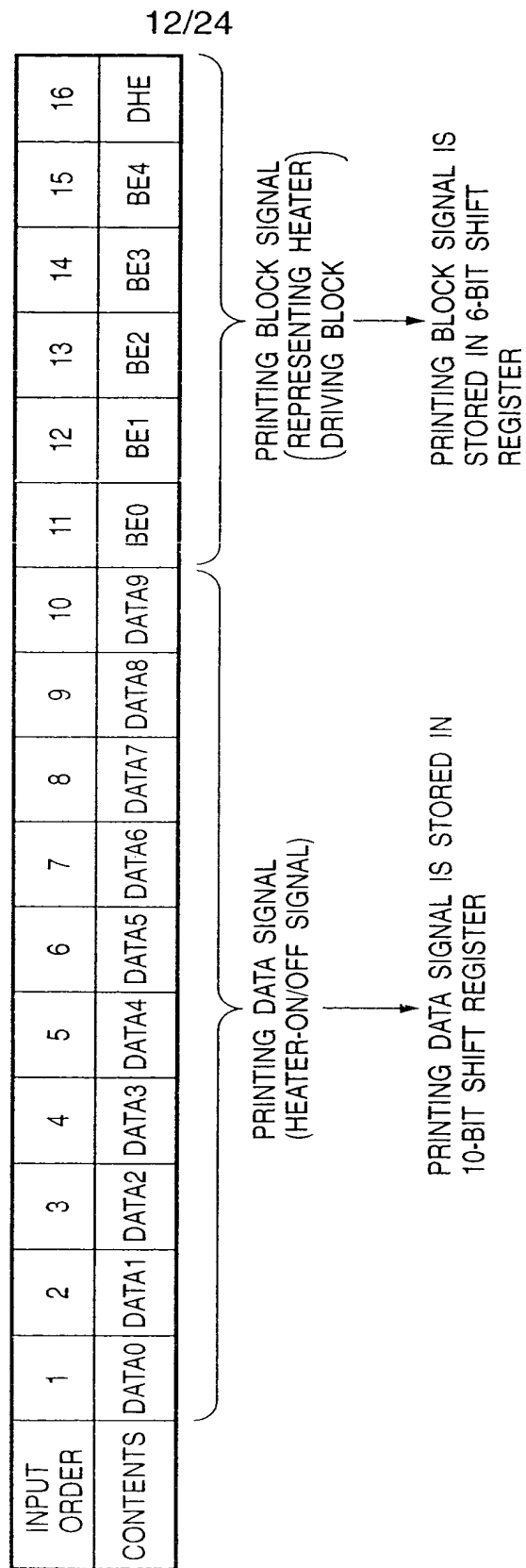


FIG. 8

TIMING CHART OF DATA TRANSFER OF PRINTING DATA(PRINTING BIT)
SIGNAL AND PRINTING BLOCK SIGNAL, AND DRIVING OF HEATER ELEMENT

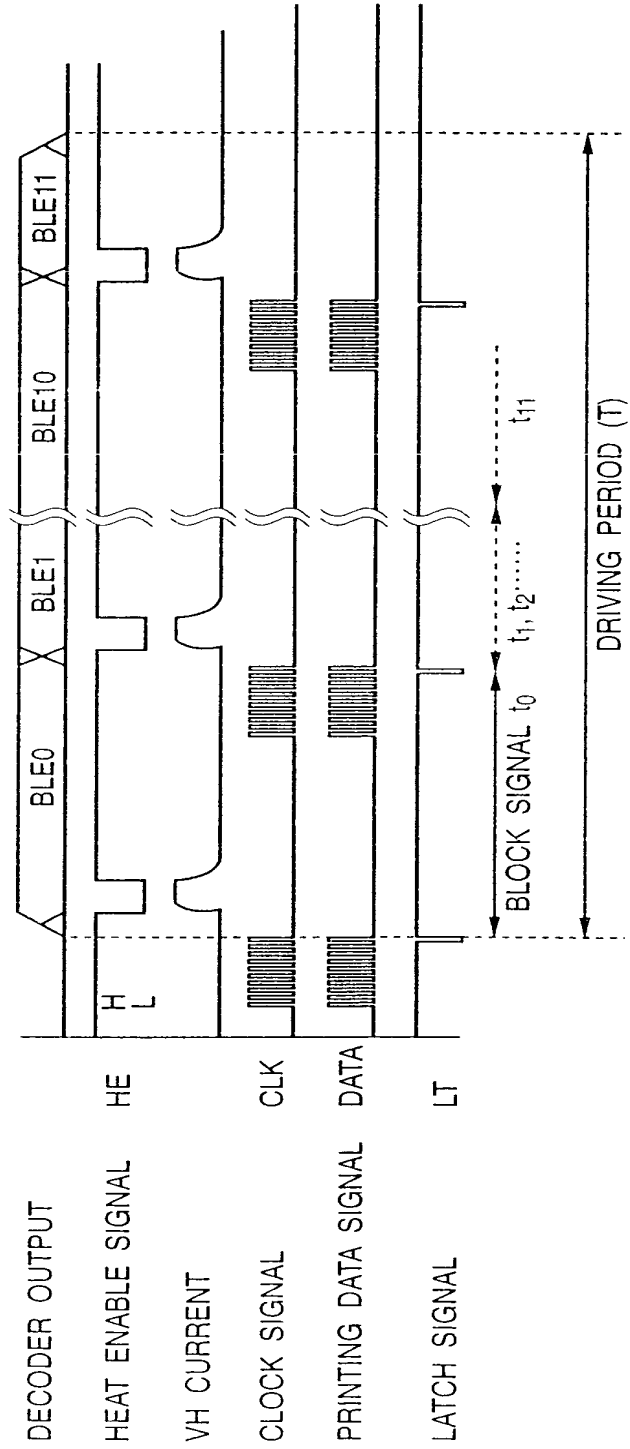


FIG. 9

BLOCK
DATA

DECODER INPUT				DECODER OUTPUT											
CODE	BE3	BE2	BE1	BE0	BLE15	BLE14	BLE13	BLE12	BLE11	.....	BLE4	BLE3	BLE2	BLE1	BLE0
0	L	L	L	L	L	L	L	L	L	.....	L	L	L	L	H
1	L	L	L	H	L	L	L	L	L	.....	L	L	L	H	L
2	L	L	L	L	L	L	L	L	L	.....	L	L	H	L	L
3	L	L	H	H	L	L	L	L	L	.....	L	H	L	L	L
4	L	H	L	L	L	L	L	L	L	.....	H	L	L	L	L
:	:	:	:	:	:	:	:	:	:		:	:	:	:	:
11	H	L	H	H	L	L	L	L	H	.....	L	L	L	L	L
12	H	H	L	L	L	L	L	H	L	.....	L	L	L	L	L
13	H	H	L	H	L	L	H	L	L	.....	L	L	L	L	L
14	H	H	H	L	L	H	L	L	L	.....	L	L	L	L	L
15	H	H	H	H	H	L	L	L	L	.....	L	L	L	L	L

L: LOW(ACTIVE)
H: HIGH

12 DECODER OUTPUTS(USE)

FIG. 10

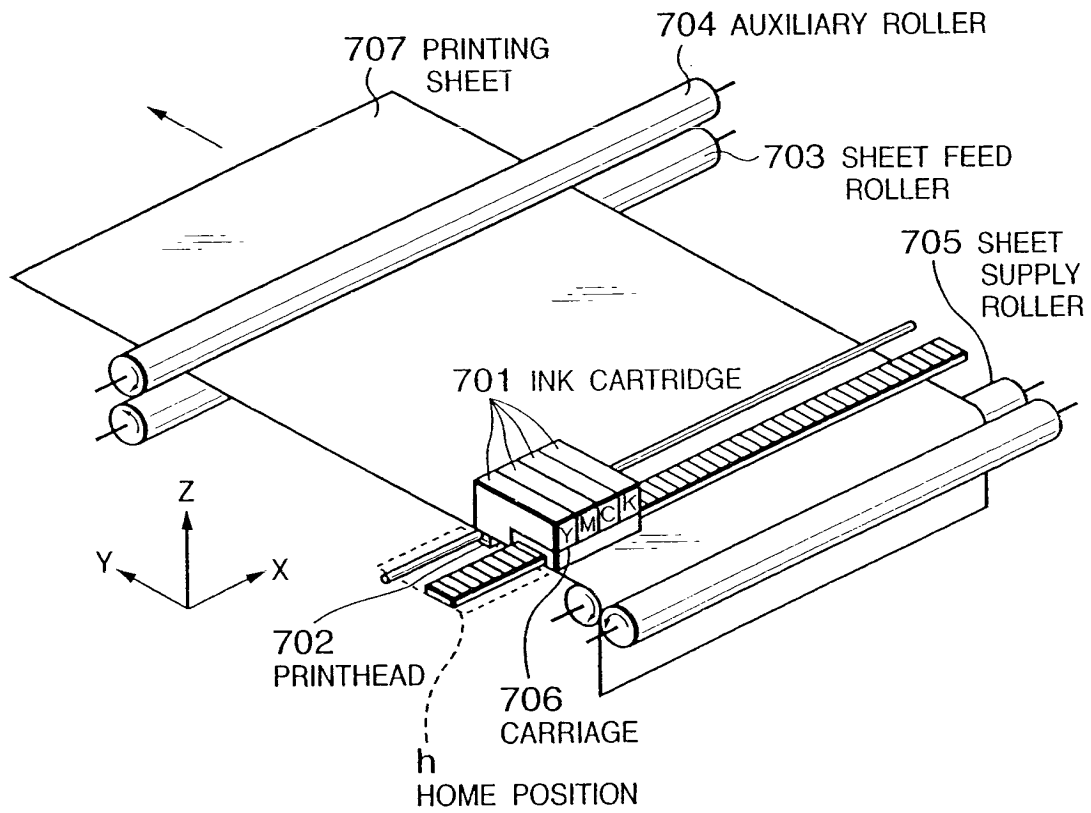


FIG. 11

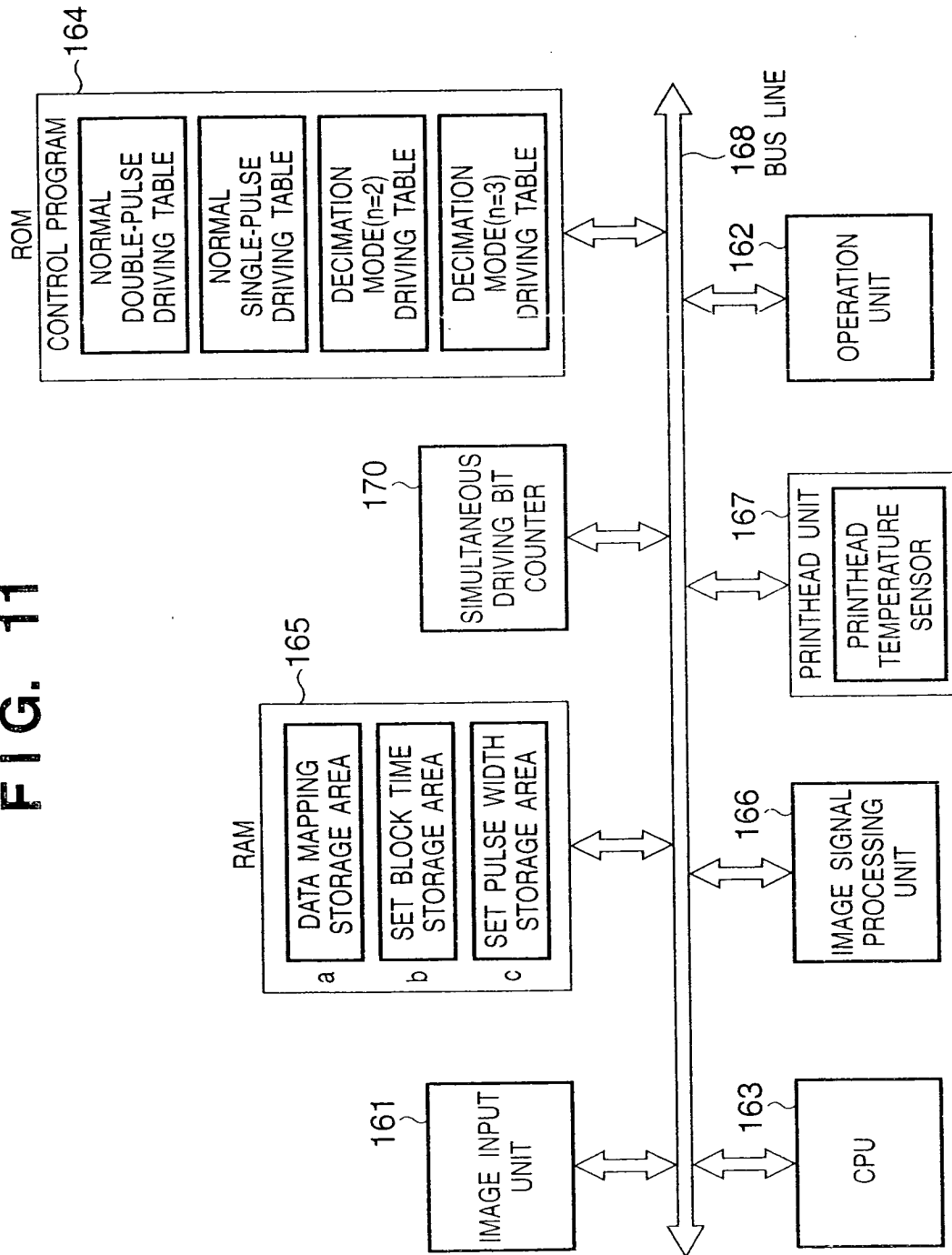


FIG. 12A

DRIVING PULSE WIDTH TABLE

	PULSE WIDTH	NORMAL DOUBLE-PULSE DRIVING	NORMAL SINGLE-PULSE DRIVING	DECIMATION MODE (n=2)	DECIMATION MODE (n=3)
FIRST BLOCK	P1[μ sec]	0.20	0.00	0.00	0.00
	P2[μ sec]	0.20	0.00	0.00	0.00
	P3[μ sec]	0.70	0.80	0.40	0.10
SECOND BLOCK	P1[μ sec]	—	—	0.00	0.00
	P2[μ sec]	—	—	0.20	0.10
	P3[μ sec]	—	—	0.70	0.40
THIRD BLOCK	P1[μ sec]	—	—	—	0.00
	P2[μ sec]	—	—	—	0.00
	P3[μ sec]	—	—	—	1.00
NUMBER OF BLOCKS		UNCHANGED	UNCHANGED	DECIMATED TO 1/2	DECIMATED TO 1/3

P1: PRE-PULSE
P2: IDLE TIME
P3: MAIN PULSE

FIG. 12B

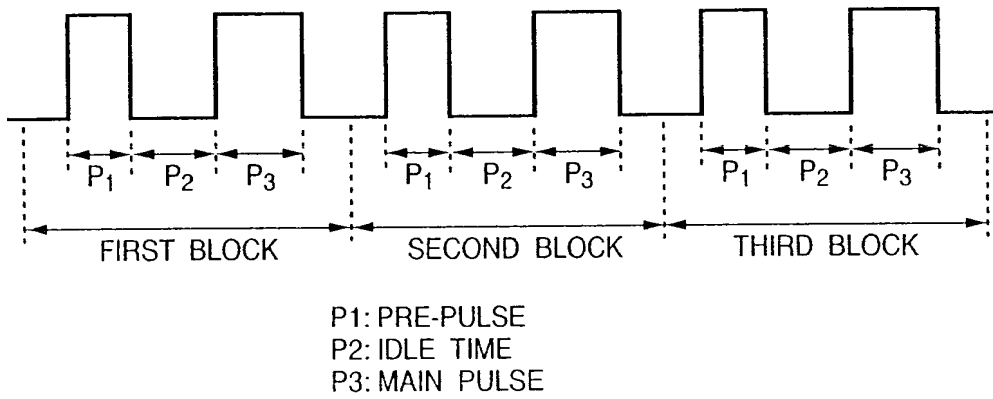


FIG. 13

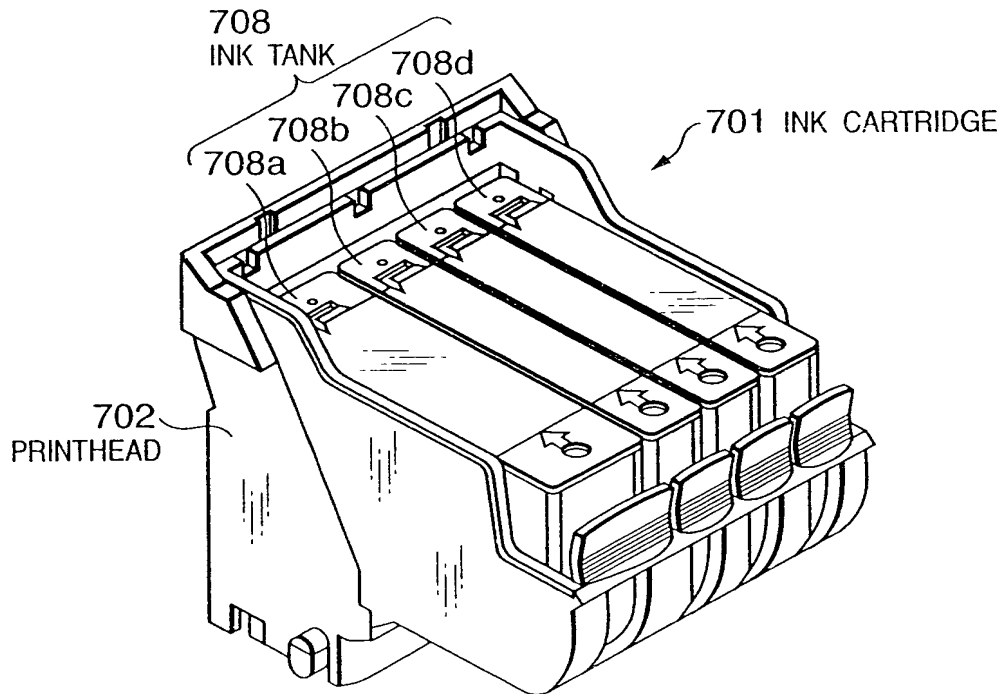


FIG. 14

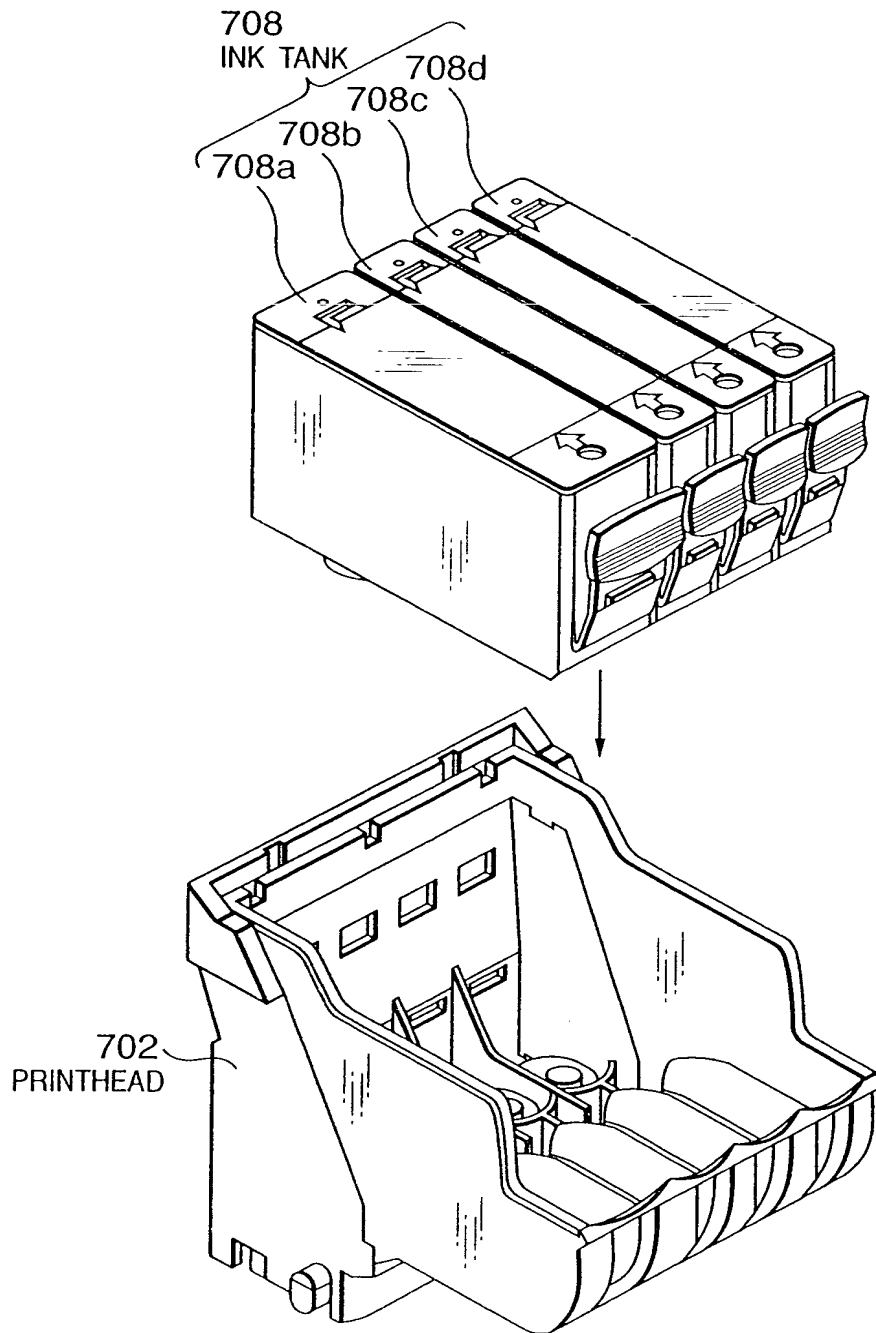


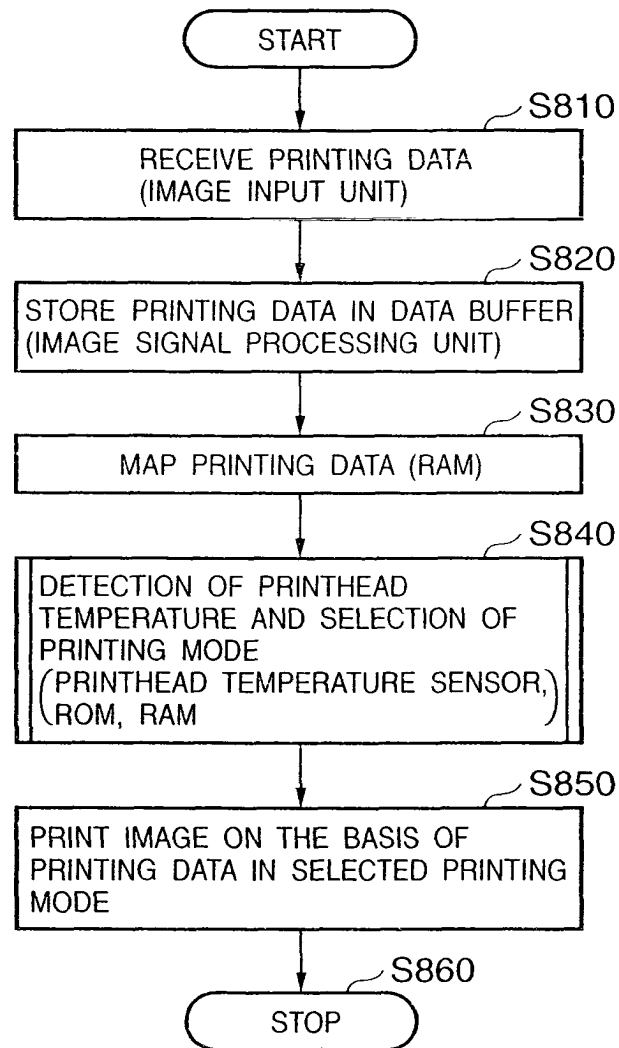
FIG. 15

FIG. 16

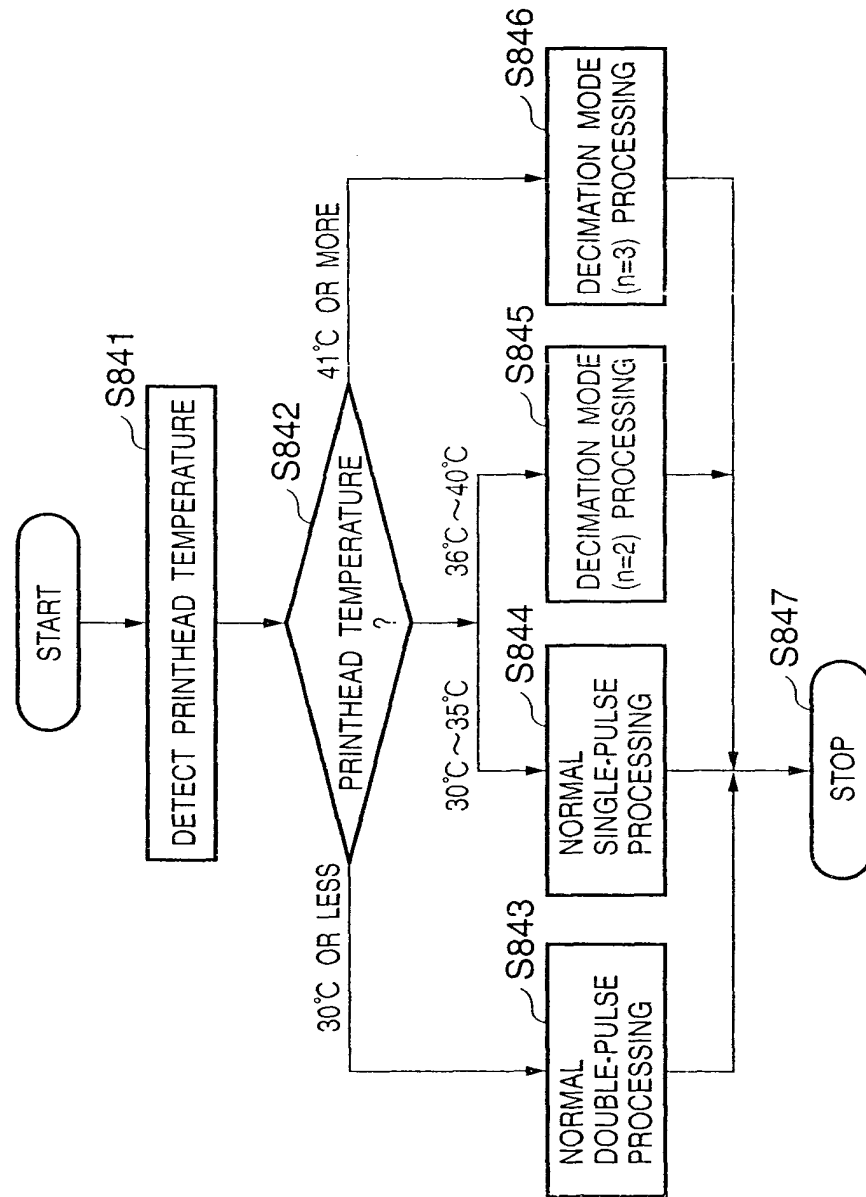


FIG. 17

SECOND EMBODIMENT

SIMULTANEOUS DRIVING BIT-PRINTING MODE TABLE

NUMBER OF BITS TO BE SIMULTANEOUSLY DRIVEN	0~2	3~5	6~8	9~10
PRINTING MODE	NORMAL DOUBLE-PULSE MODE	NORMAL SINGLE-PULSE MODE	DECIMATION (n=2) MODE	DECIMATION (n=3) MODE

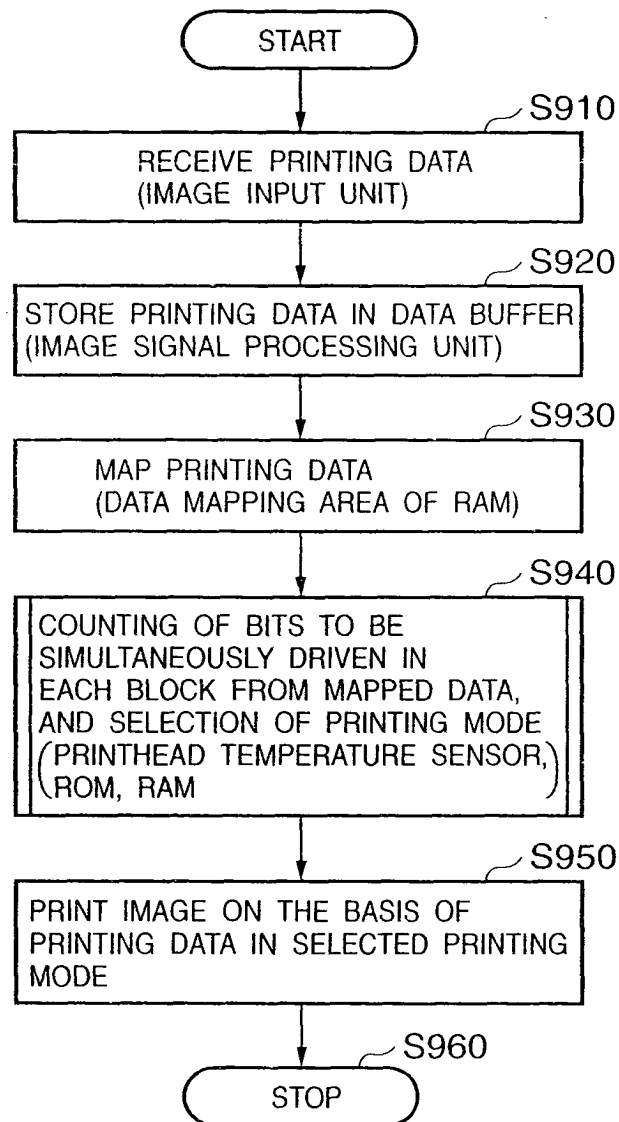
FIG. 18

FIG. 19

